

The importance of the local school environment in encouraging healthy school travel and healthy local communities

Emma McCone, Prof Simon Kingham & Dr Angela Curl

Department of Geography – Tari Mātai Matawhenua

University of Canterbury - Te Whare Wananga O Waitaha

Ministry of Transport – Te Manatū Waka



New Zealand study

100% PURE NEW ZEALAND

[Home](#) [Destinations](#) [Things to do](#) [Facts](#) [Travel to NZ](#) [Recommended trips](#)



GET NEW ZEALAND ON YOUR MAP



SCIENCE
Challenges

NG BETTER
HOMES, TOWNS
AND CITIES

Ko Ngā wā Kainga hei
whakamāhorahora

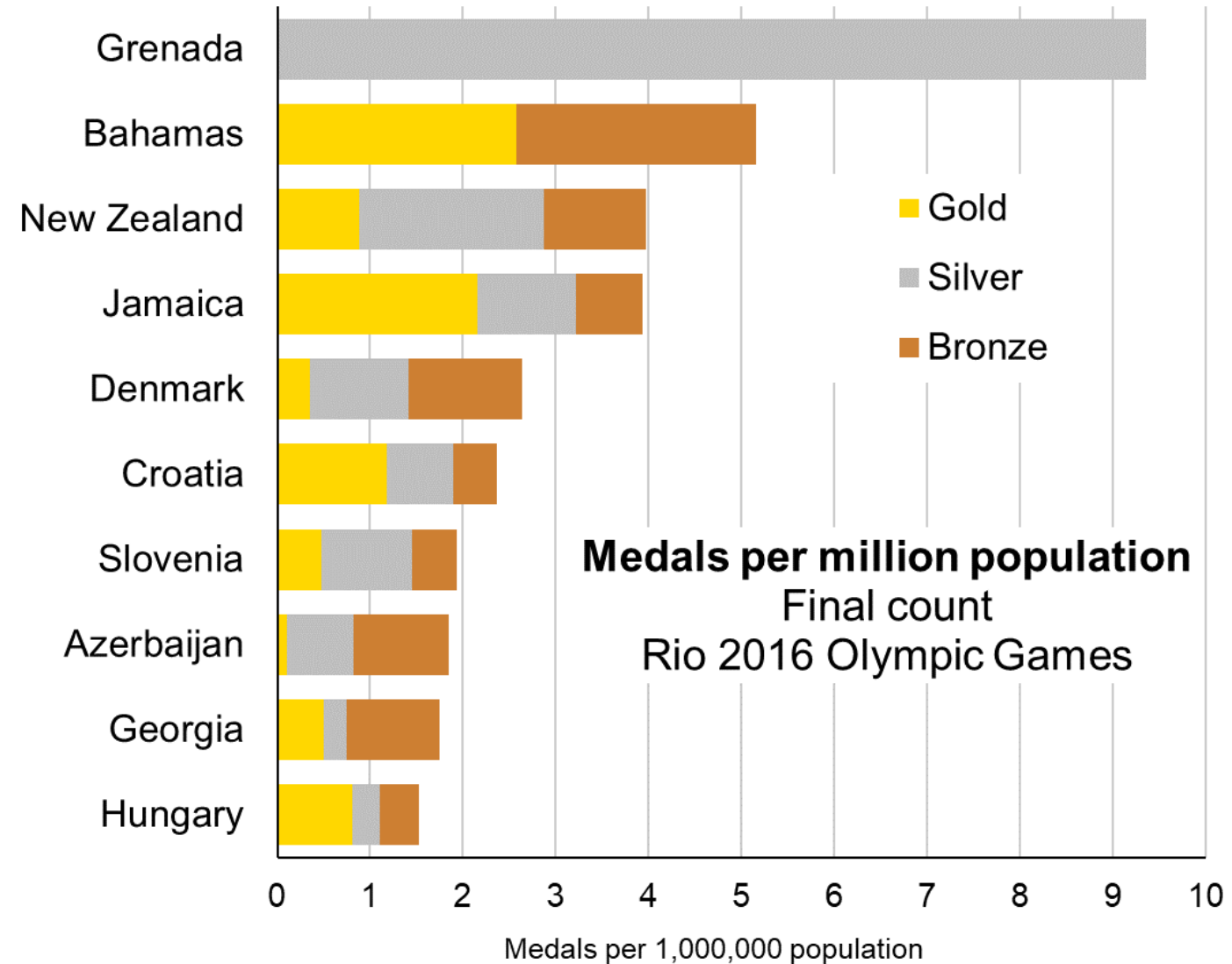
New Zealand study

- 5 million people
- Low density cities
- High car use
- High obesity rates



August 22 2016: New Zealand finishes third on medals per capita table at Rio

New Zealand's 18 medals at the Rio Olympics put us in third place for total medals per capita, Statistics NZ said today.



Updated 10am NZT Tuesday, 30 Aug 2016.
Note: Population estimates are 2015 estimates from the United Nations.
Source: Statistics New Zealand, with medal counts from www.rio2016.com

Te Ara Mua – Future Streets

Māngere, South Auckland, NZ

Deprived suburb on edge of NZ's largest city

Project that changed streets in order to:

- Increase physical activity (walking, cycling)
- Improve road user behaviour and safety

Quantify the economic, health and social benefits of safe roads and streets

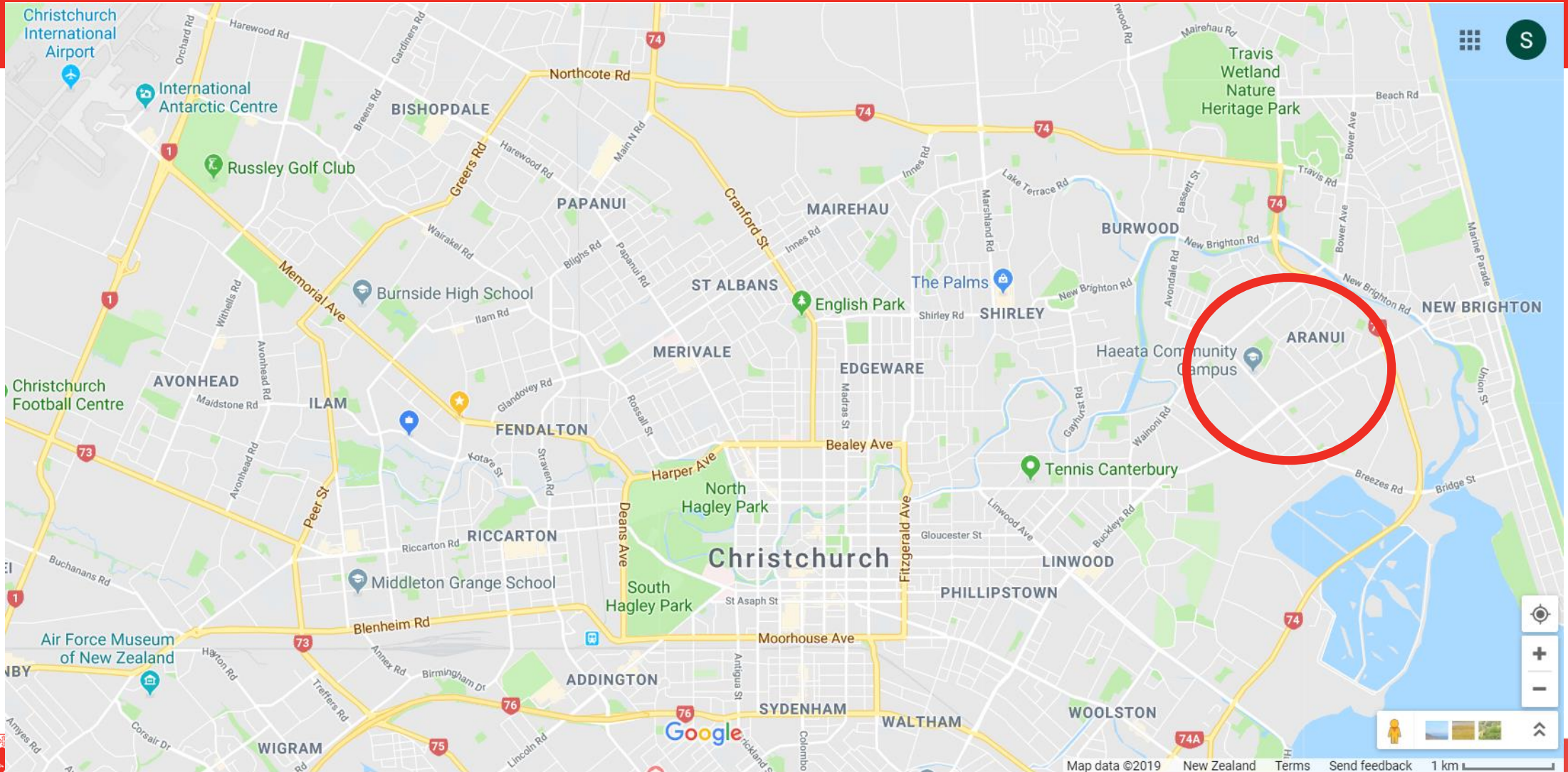


Christchurch study

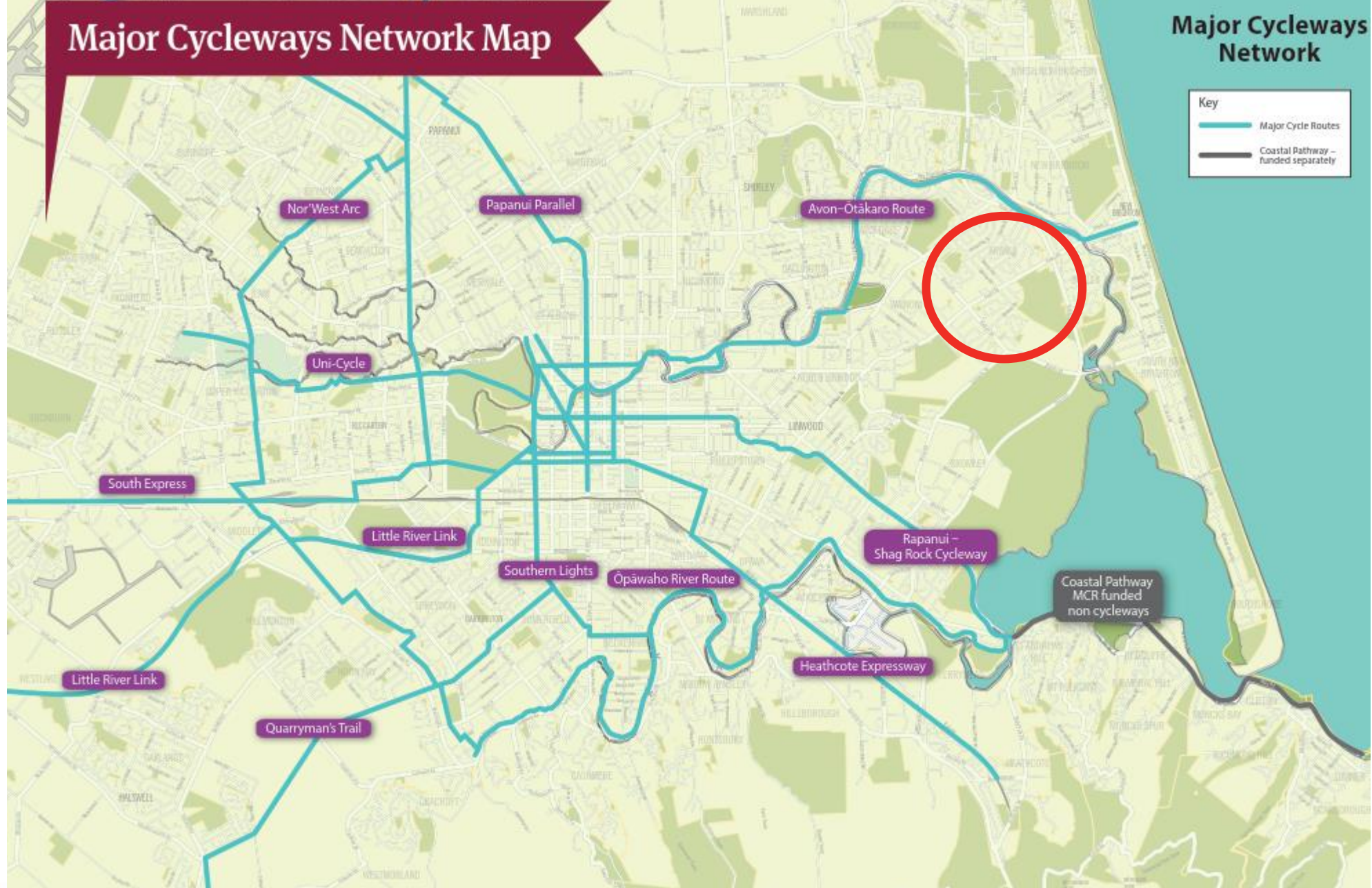
- Aranui, east Christchurch:
 - Deprived suburb of Christchurch
- Haeata Community Campus
 - Result of Education Renewal scheme post-EQs
 - Merger of 4 schools
 - New school opened Feb 2017
 - Years 1-13 (ages 5-18 yrs)

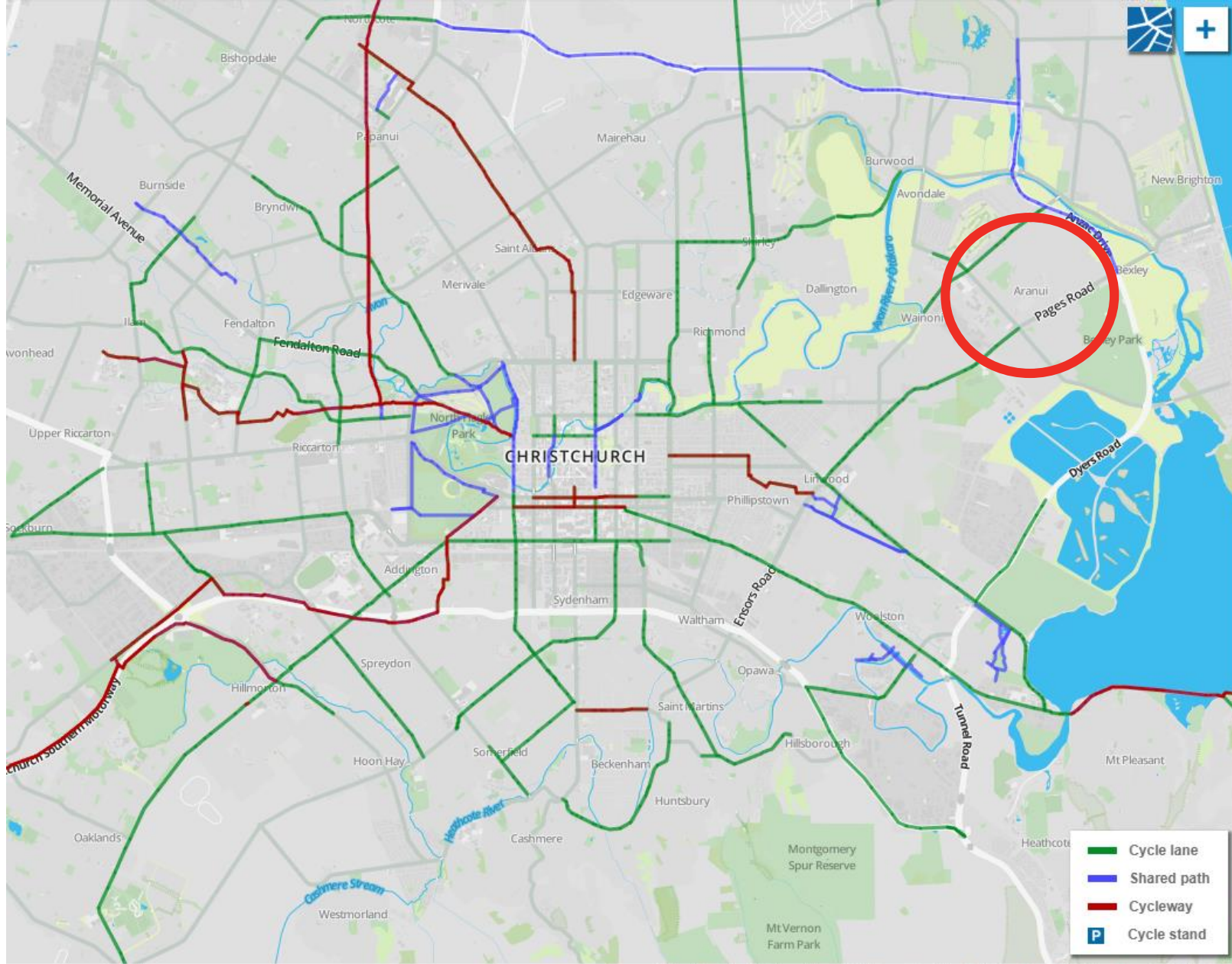


Aranui

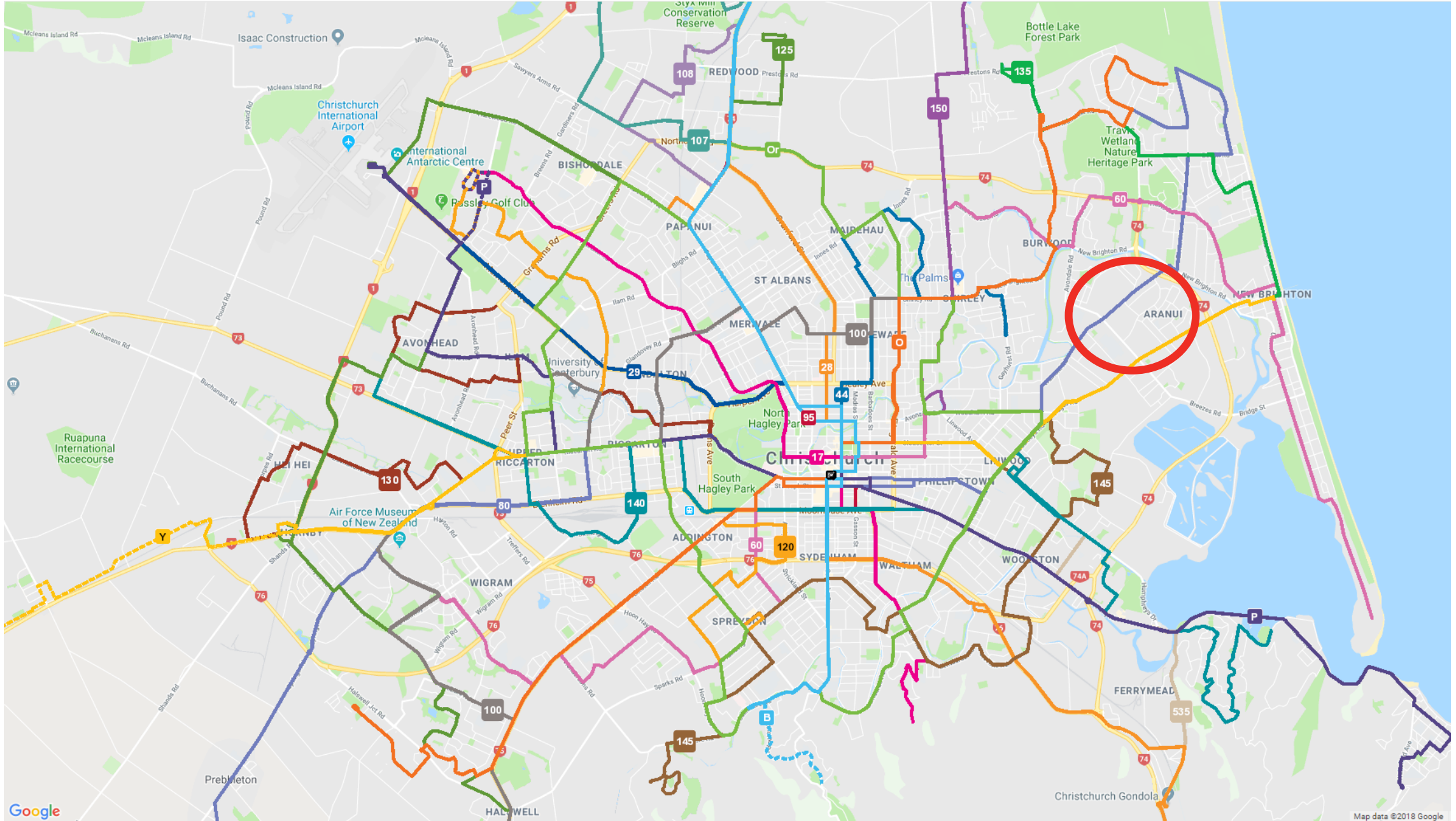


Major Cycleways Network Map

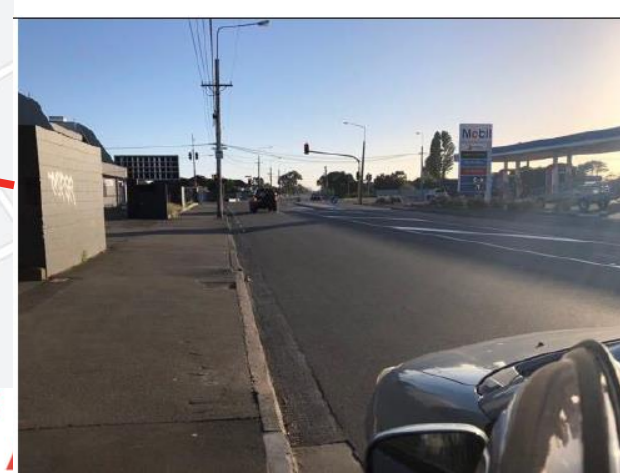
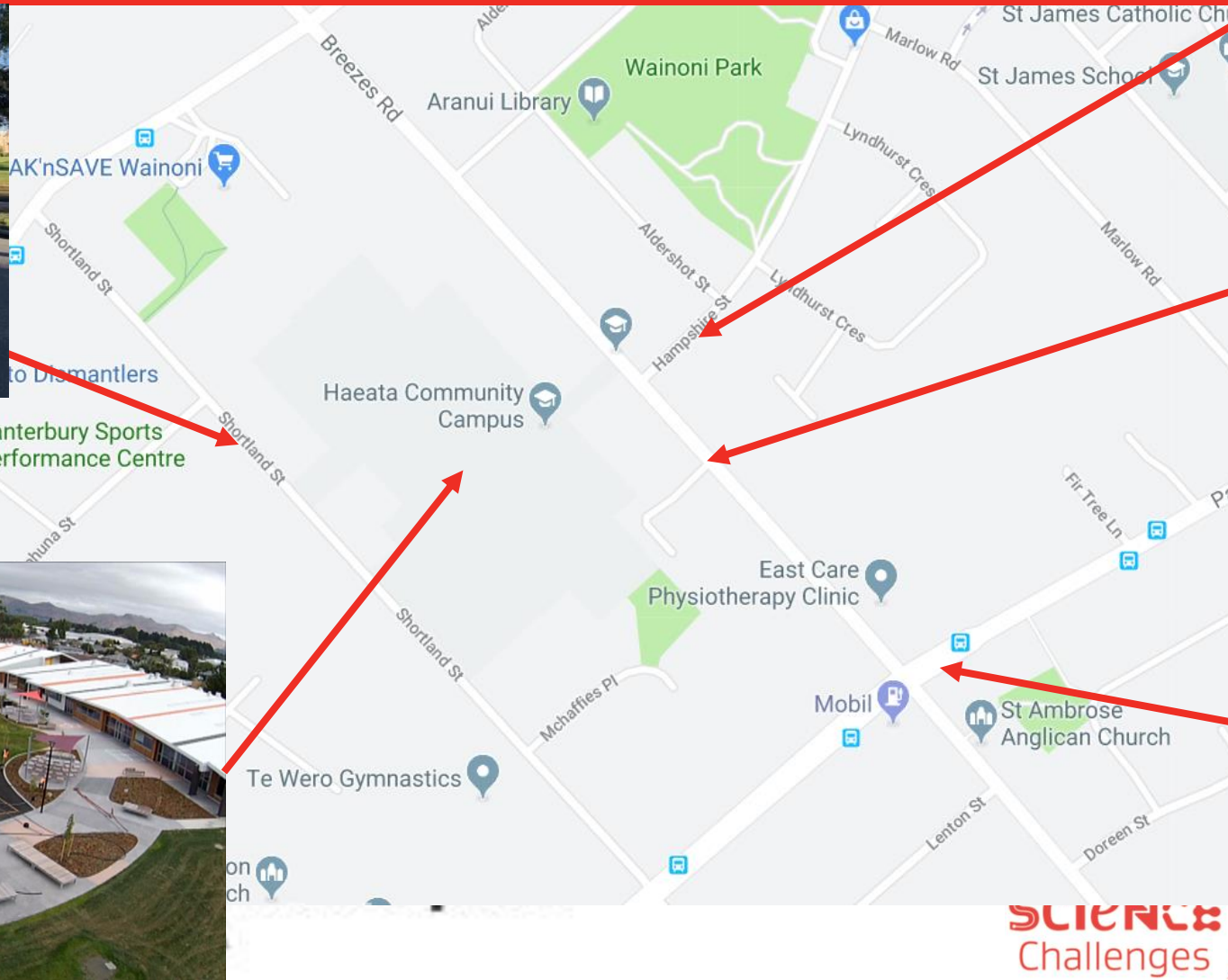




[Terms of Use](#) | [Feedback](#) | [Share](#) | [Copyright information](#) | [Leaflet](#) | [Tiles OpenStreetMap Sweden](#), Data: [CCC](#)



Aranui and Haeata Community Campus



Objectives

- How does the local built environment affect active school travel?

Essentially, if the local neighbourhood around Haeata Community Campus could be designed to be more youth-friendly, would more students bike and walk to school?

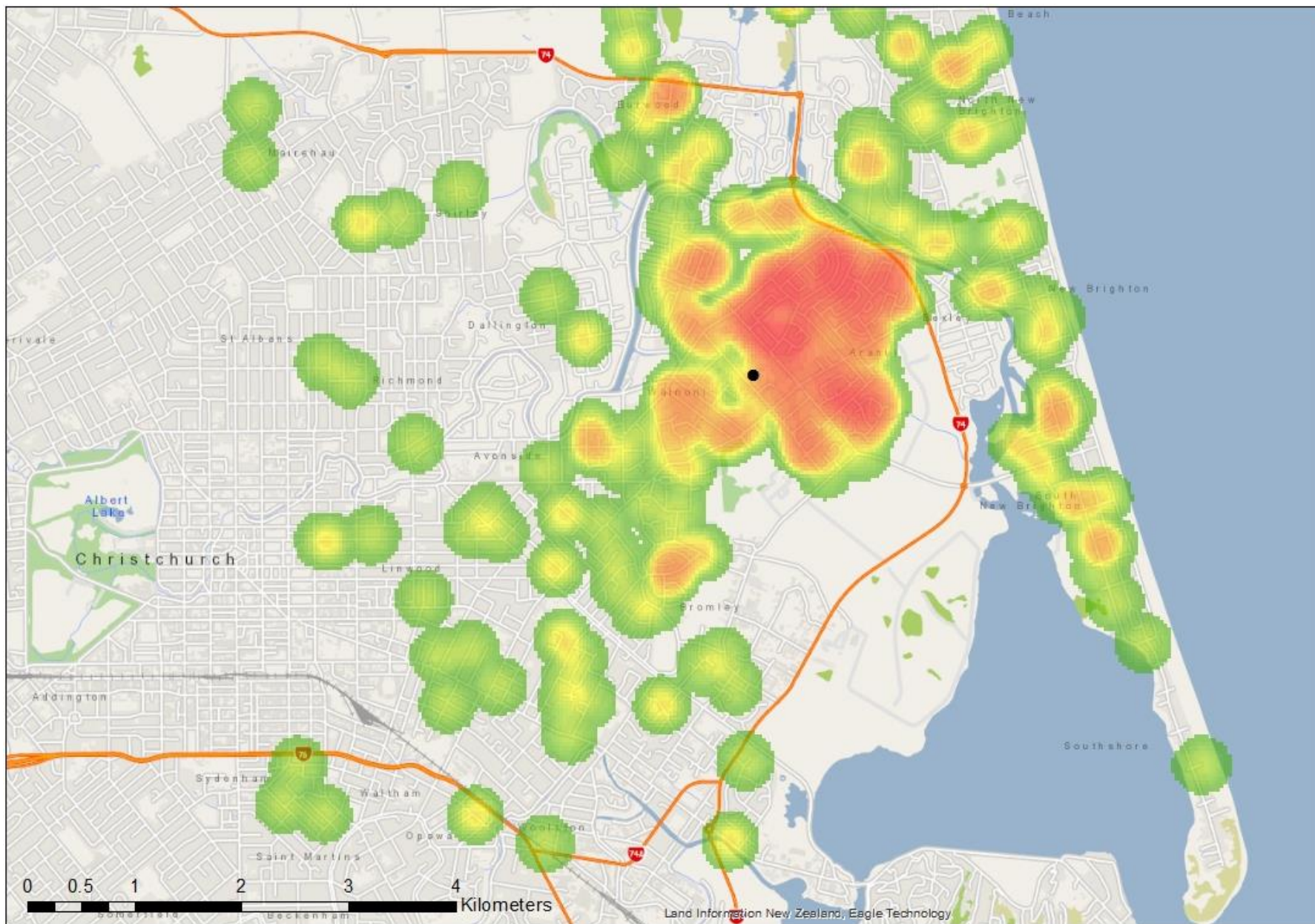
Methods

Two key components

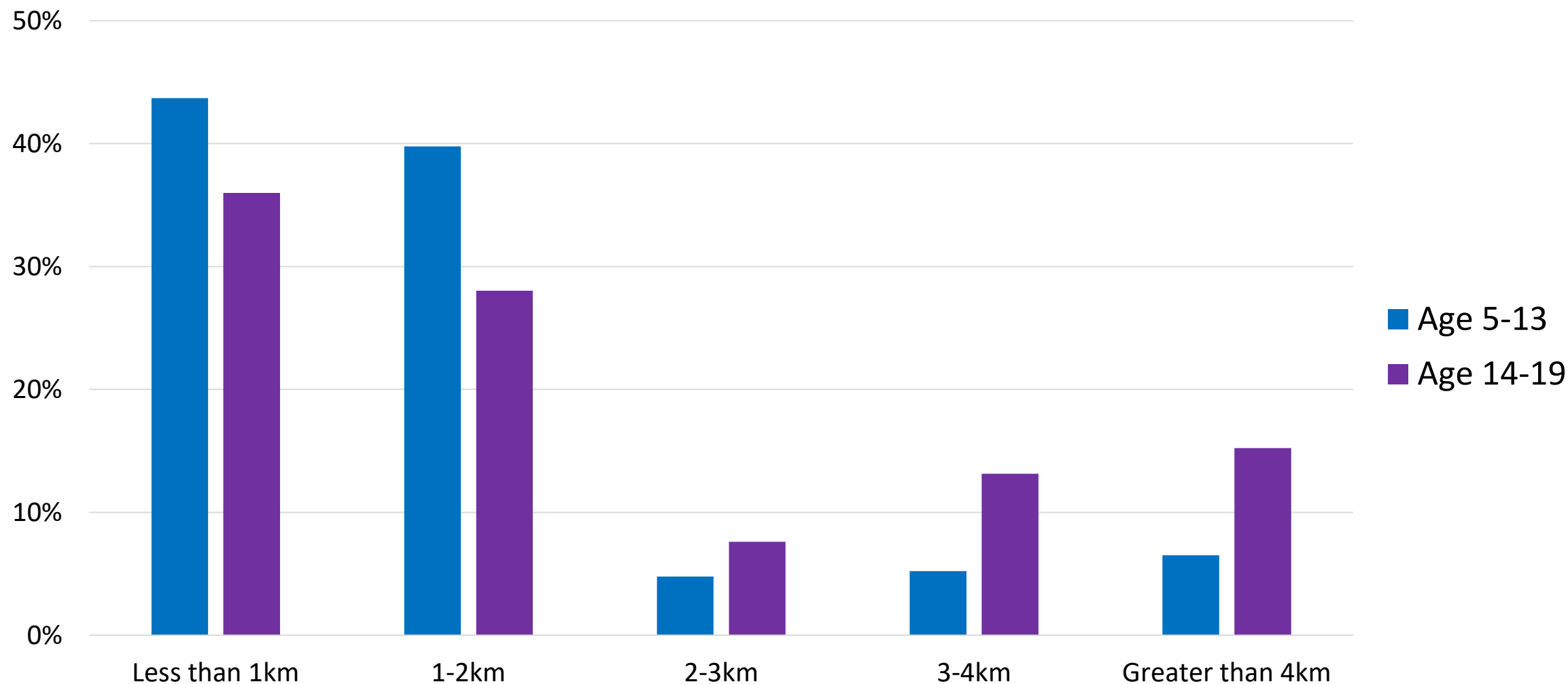
- *GIS mapping and analysis of student home addresses from school roll data*
- *Online Maptionnaire survey at school*

Range	2017 (n)	2017 (%)	2018 (n)	2018 (%)
Less than 1km	335	37.35%	305	40.72%
1km-2km	317	35.34%	264	35.25%
2km-3km	54	6.02%	44	5.87%
3-4km	100	11.15%	62	8.28%
Over 4km	91	10.14%	74	9.88%

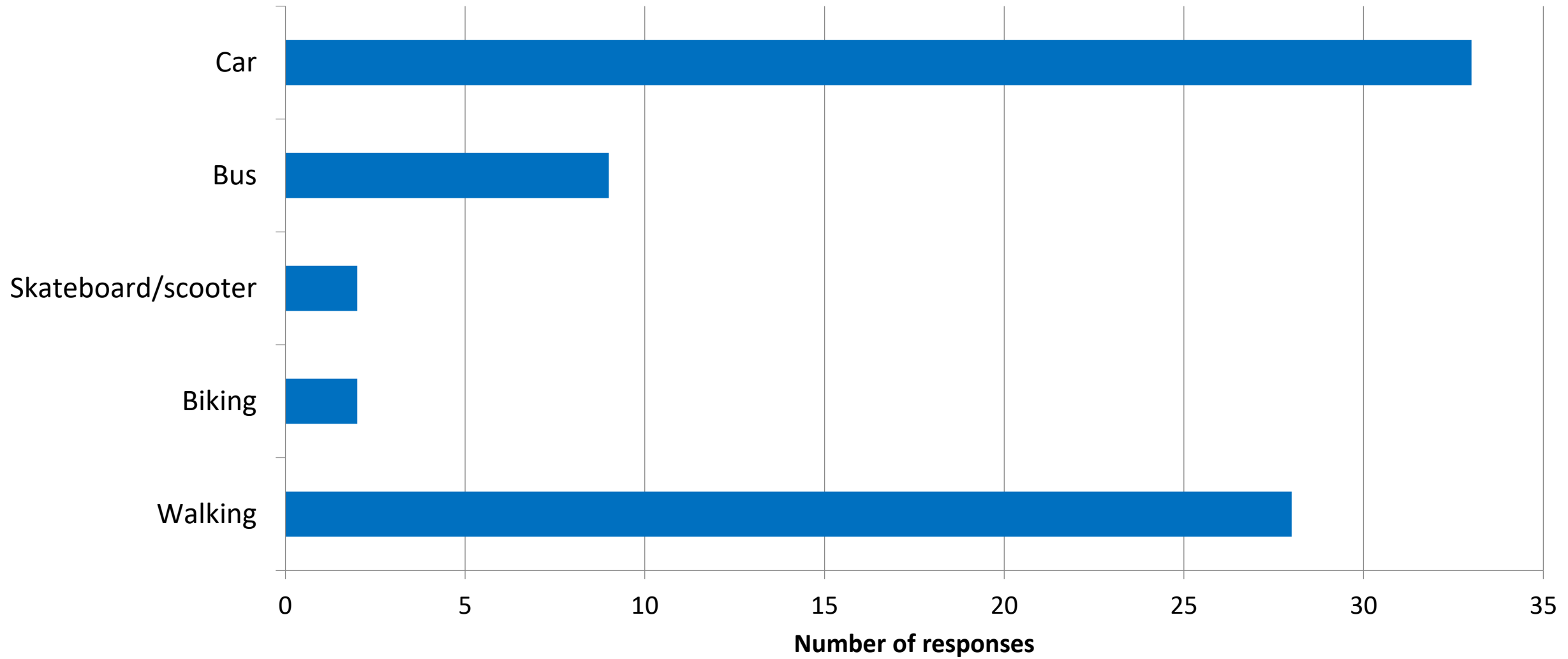
Distance between Haeata Community Campus and students included in MoE roll map. n= 897 (2017), 749 (2018)



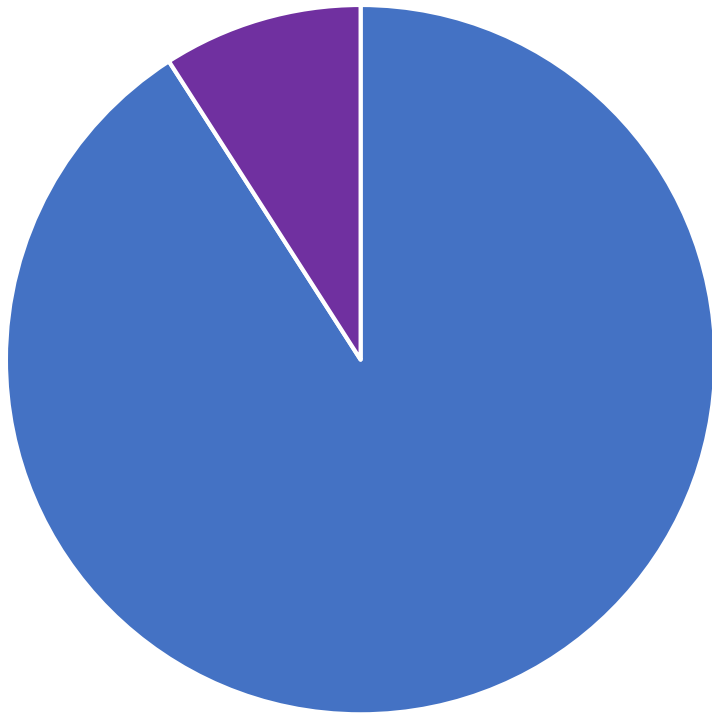
Distance between school and home by age group - Haeata Community Campus (2018)



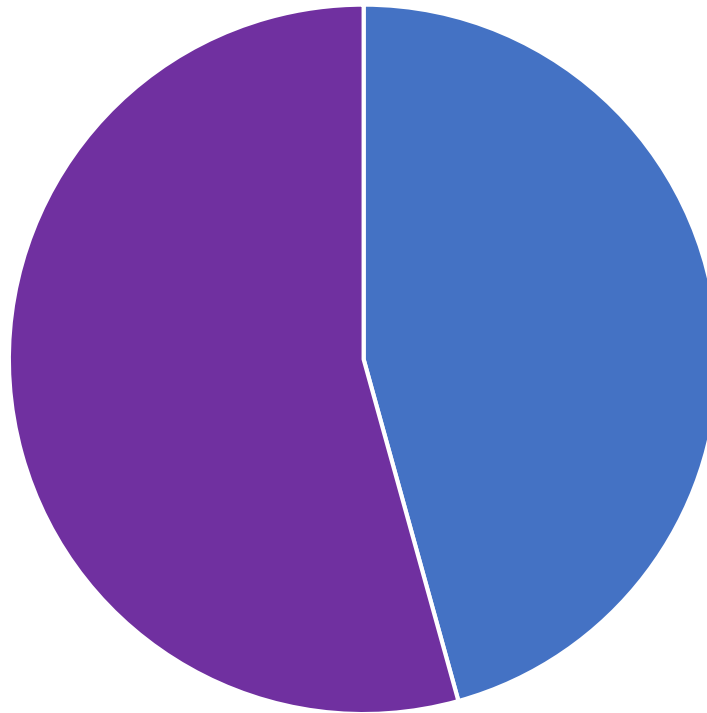
Travel mode to school (n=74)



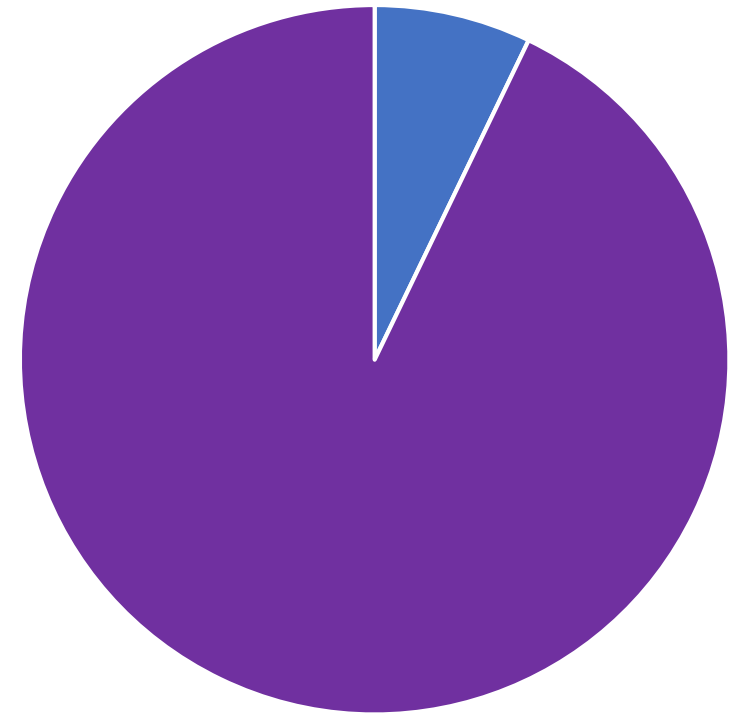
Less than 1km



1-2km



Greater than 2km

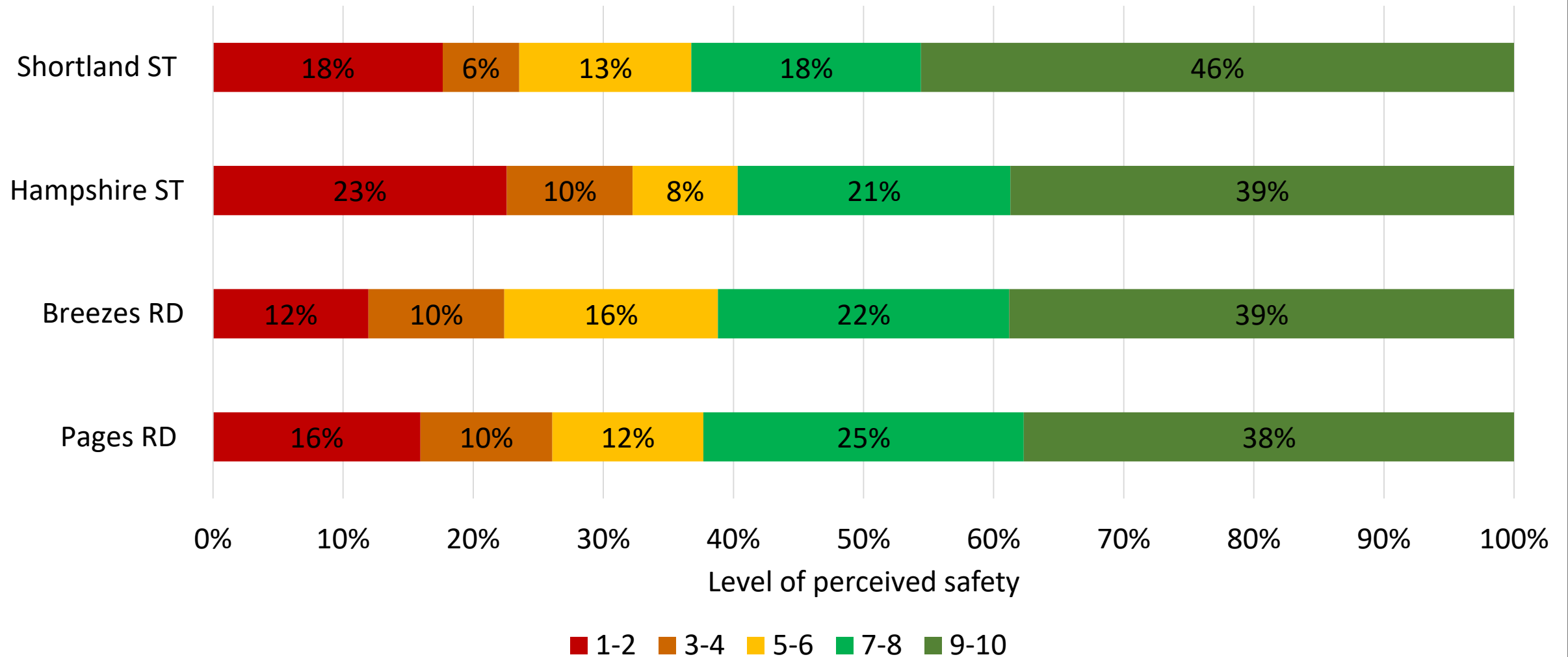


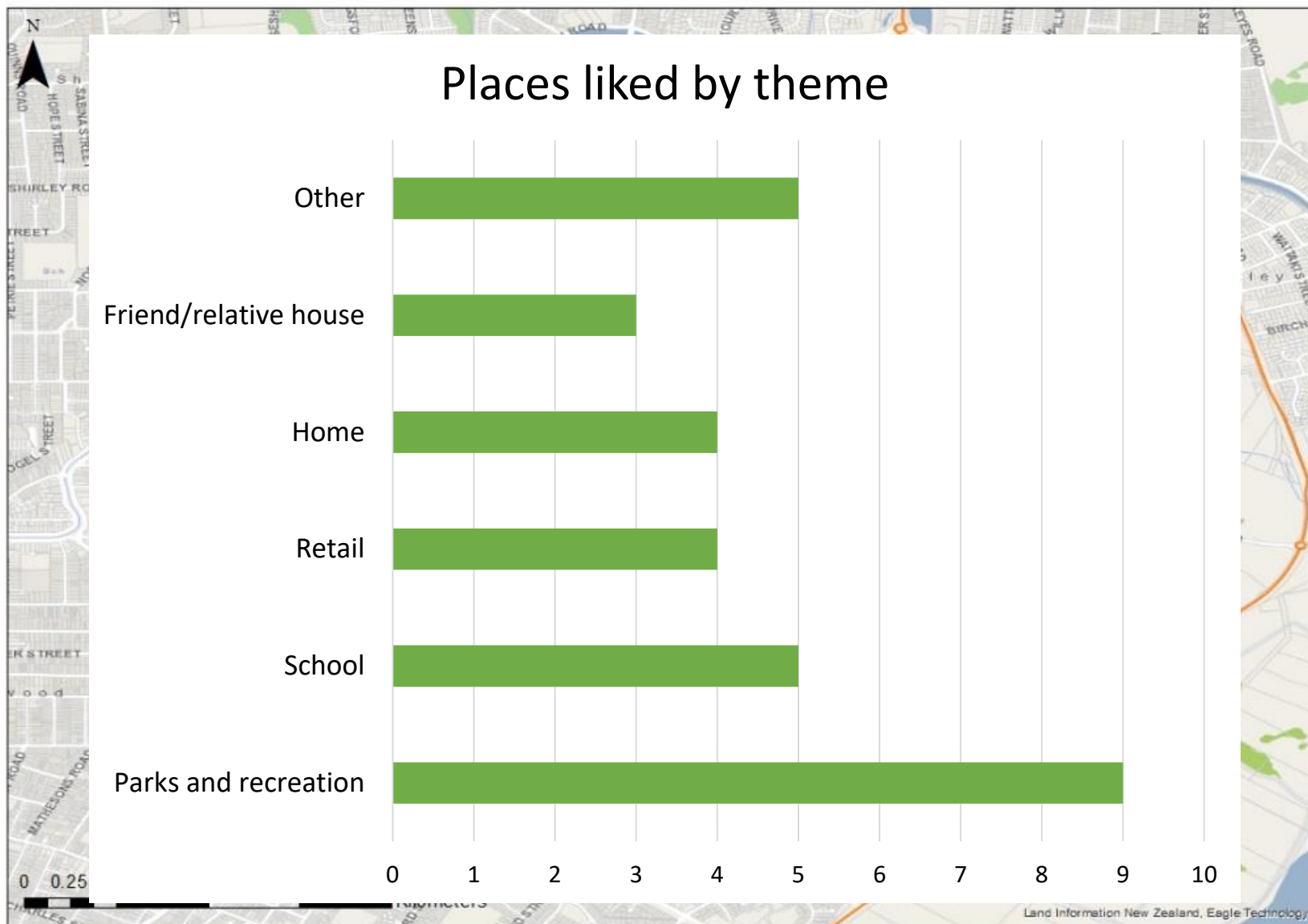
■ Active Travel ■ Car Travel

Key trends

- 1) A large majority of students live within 2km of their school (~75%).
- 2) High school aged students tend to be more likely to live further away from school than primary aged students.
- 3) The proportion of students who live within 2km of school, and proportion of students who utilise active transport modes are disproportionate.

How safe do you feel walking or hanging out in these streets?



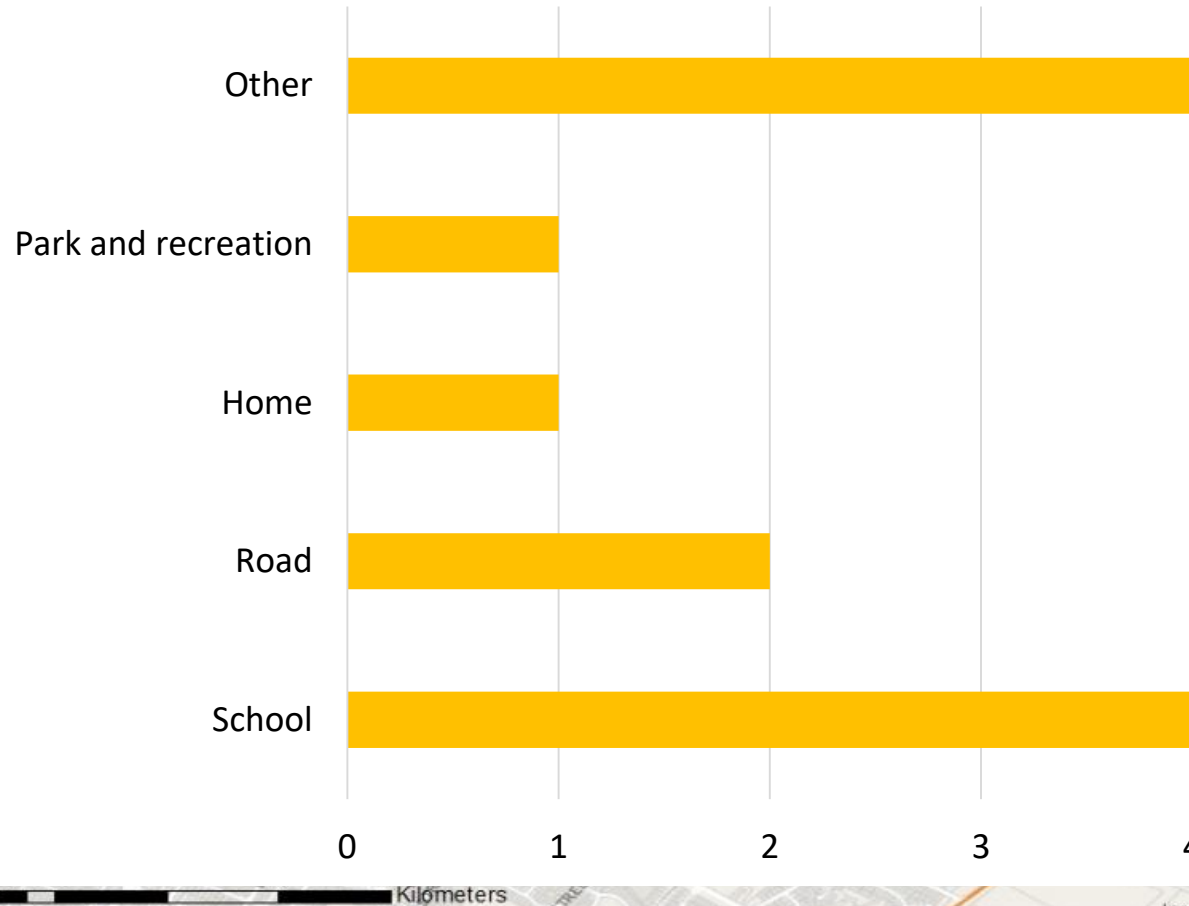


“cause it has a library and food ” – Like, Eastgate Shopping Centre

“There's a park and a dairy. Not bad. 5/7 ” – Like, Hampshire Street shops

“Because I like to hangout and play basketball with my friends” – Like, Linwood Park

Places disliked by theme



***“its dirty and horrid” –
Dislike, Hampshire Street***

***“I don't feel safe enough” –
Dislike, Lenton Street***

***“cause I don't hang out
anywhere because
everywhere in aranui is
dangerous. This is just the
place I got to the most
outside of my house” – Like,
Haeata Community Campus***

Conclusions

Majority of students live within a reasonable distance of school, so what factors are dominating modal choice and behaviour?

- The public transport connections do not appropriately meet the needs of students. There are distinctive areas further away from school with limited access to PT.
- There are limited cycle lanes in the area. The safety and standard of these is unknown from this analysis.
- Aranui is perceived to be a highly unsafe area. This acts as a limiting factor for active travel

Implications

- There is potential for alternate modes of transport (public transport, cycling or walking).
- Targeted action based on evidence is crucial.

Majority of students live within a reasonable distance of school, so what factors are dominating modal choice and behaviour?



Final comment

- Streetscape matters
 - Poor environment discourages active travel
 - Streetscape matters more in low income areas?
- Need to reduce reliance on private vehicles
 - Physical activity, climate change, community, social justice
- Next steps
 - Trial shared mobility and impacts on physical activity, climate change, community

